

## STIC Biotechnology Systems Branch

### RAW SEQUENCE LISTING

### ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/573,718A  
Source: IFWP  
Date Processed by STIC: 1/16/07

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

## Raw Sequence Listing Error Summary

**ERROR DETECTED**

### SUGGESTED CORRECTION

**SERIAL NUMBER:**

10/573,718A

**ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE**

- |    |  |  |
|----|--|--|
| 1  | _____ Wrapped Nucleics<br>Wrapped Aminos | The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor <b>after</b> creating it. Please adjust your right margin to .3; this will prevent "wrapping."  |
| 2  | _____ Invalid Line Length                | The rules require that a line <b>not exceed</b> 72 characters in length. This includes white spaces.   |
| 3  | _____ Misaligned Amino<br>Numbering      | The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do <b>not</b> use tab codes between numbers; use <b>space characters</b> , instead.   |
| 4  | _____ Non-ASCII                          | The submitted file was <b>not</b> saved in ASCII(DOS) text, as <b>required</b> by the Sequence Rules. Please <b>ensure your subsequent submission is saved in ASCII text</b> .   |
| 5  | _____ Variable Length                    | Sequence(s) _____ contain n's or Xaa's representing more than one residue. <b>Per Sequence Rules, each n or Xaa can only represent a single residue.</b> Please present the <b>maximum</b> number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.   |
| 6  | _____ PatentIn 2.0<br>"bug"              | A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. <b>This applies to the mandatory &lt;220&gt;-&lt;223&gt; sections for Artificial or Unknown sequences.</b>   |
| 7  | _____ Skipped Sequences<br>(OLD RULES)   | Sequence(s) _____ missing. If intentional, please insert the following lines for <b>each</b> skipped sequence:<br>(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)<br>(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>This sequence is intentionally skipped<br>Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to <b>include</b> the skipped sequences. |
| 8  | _____ Skipped Sequences<br>(NEW RULES)   | Sequence(s) _____ missing. If <b>intentional</b> , please insert the following lines for <b>each</b> skipped sequence.<br><210> sequence id number<br><400> sequence id number<br>000  |
| 9  | _____ Use of n's or Xaa's<br>(NEW RULES) | Use of n's and/or Xaa's have been detected in the Sequence Listing.<br>Per 1.823 of Sequence Rules, use of <220>-<223> is <b>MANDATORY</b> if n's or Xaa's are present.<br>In <220> to <223> section, please explain location of <b>n</b> or <b>Xaa</b> , and which residue <b>n</b> or <b>Xaa</b> represents.   |
| 10 | _____ Invalid <213><br>Response          | Per 1.823 of Sequence Rules, the only <b>valid</b> <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is <b>required</b> when <213> response is Unknown or is Artificial Sequence. (see item 11 below)   |
| 11 | _____ Use of <220>                       | Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is <b>MANDATORY</b> if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules  |
| 12 | _____ PatentIn 2.0<br>"bug"              | Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.  |
| 13 | _____ Misuse of n/Xaa                    | "n" can <b>only</b> represent a single <u>nucleotide</u> ; "Xaa" can <b>only</b> represent a single <u>amino acid</u>  |



IFWP

## RAW SEQUENCE LISTING

DATE: 01/18/2007

PATENT APPLICATION: US/10/573,718A

TIME: 17:05:19

Input Set : N:\Cr4\01162007\J573728A.raw

Output Set : N:\CRF4\01182007\J573718A.raw

Does Not Comply  
Corrected Diskette Needed

1 <110> APPLICANT: Toraya, Tetsuo  
 2 Tobimatsu, Takamasa  
 3 Yamanishi, Mamoru  
 4 Mori, Kouichi  
 5 Kajiura, Hideki  
 6 Yamada, Seiki  
 7 Yuzuki, Michio  
 8 Azuma, Muneaki  
 9 Hara, Tetsuya  
 10 Yasuda, Shinzo  
 11 <120> TITLE OF INVENTION: Method for Production of 3-hydroxypropionaldehyde  
 12 <130> FILE REFERENCE: 08917-116US1  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/573,718A  
 14 <141> CURRENT FILING DATE: 2006-03-27  
 15 <150> PRIOR APPLICATION NUMBER: PCT/JP2004/014213  
 16 <151> PRIOR FILING DATE: 2004-09-29  
 17 <150> PRIOR APPLICATION NUMBER: JP 2003-337663  
 18 <151> PRIOR FILING DATE: 2003-09-29  
 19 <160> NUMBER OF SEQ ID NOS: 4  
 20 <170> SOFTWARE: PatentIn version 3.1  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 7183  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: plasmid pBR322  
 26 <400> SEQUENCE: 1  
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 28 gtatggctgt gcaggtcgta aatcactgca taattcgtgt cgctcaaggc gcactcccgt 120  
 29 tctggataat gttttttgcg ccgacatcat aacggttctg gcaaattatc tgaaatgagc 180  
 30 tgttgacaat taatcatcgg ctctgtataat gtgtggaatt gtgagcggat aacaatttca 240  
 31 cacaggaaac agtacatatg agatcgaaaa gatttgaagc actggcgaaa cgccctgtga 300  
 32 atcaggacgg ctctggttaag gagtggatcg aagaaggctt tatcgcgatg gaaagcccga 360  
 33 acgacccaaa accgtcgatt aaaatcgtta acggcgcggt gaccgagctg gacgggaaac 420  
 34 cggtaagcga ttttgacctg atcgaccact ttatcgcccc ctacggatc aacctgaacc 480  
 35 gcgccgaaga agtgatggcg atggattcgg tcaagctggc caacatgctg tgcgatccga 540  
 36 acgttaaacy cagcgaaatc gtcccgtga ccaccgcgat gacgccggcg aaaattgtcg 600  
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 38 gccgcacccc gtcccagcag gcgcacgtca ccaacgtcaa agataacccg gtacagattg 720  
 39 ccgccgacgc gcgccgaagg gcatggcgcg gatttgacga acaggaaacc accgttgcg 780  
 40 tagcgcgcta tgcgccgttc aacgccatcg cgctgctggt gggctcgag gtaggccgtc 840  
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 42 gccacacctg ctacgccgaa accatctccg tctacggcac cgagccggtc tttaccgacg 960  
 43 gcgacgacac gccgtggctg aagggtcttc tcgcctcgtc ctacgcctct cgcgggctga 1020  
 44 aaatgcgctt tacctccggc tccggctcgg aagtgcagat gggctacgcc gaaggcaa 1080

see pp 1/4

invalid response-see item 10 on Enon  
summary  
sheet

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DATE: 01/18/2007

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TIME: 17:05:19

Input Set : N:\Cr4\01162007\J573728A.raw

Output Set: N:\CRF4\01182007\J573718A.raw

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| 46 | tgcaaaacgg  | ttccgtaagc  | tgcacgcggc | tgccgtctgc | ggcgcttcc   | ggcattcgcg | 1200 |
| 47 | cgggtgctggc | ggaaaaacctg | atctgttcgt | cgctggatct | ggagtgcgcc  | tccagcaacg | 1260 |
| 48 | accagacctt  | cacccactcc  | gatatgcgtc | gtaccgcgcg | cctgctgatg  | cagttcctgc | 1320 |
| 49 | cgggcaccga  | ctttatctcc  | tccggttatt | ccgcggtgcc | gaactacgac  | aacatgttcg | 1380 |
| 50 | ccggctccaa  | cgaagatgcc  | gaagactttg | acgactacaa | cgtcatccag  | cgcgacctga | 1440 |
| 51 | aggtggacgg  | cggtttgctg  | ccggttcgcg | aagaggacgt | catcgccatc  | cgtaacaaag | 1500 |
| 52 | ccgcccgcgc  | gctgcaggcc  | gtgtttgcgc | gaatggggct | gccgccgatt  | accgatgaag | 1560 |
| 53 | aagttgaagc  | cgcgacctac  | gcccacggtt | cgaagatat  | gccggagcgc  | aacatcgctc | 1620 |
| 54 | aagacatcaa  | gttcgcccag  | gaaatcatca | ataaaaaccg | caacggctcg  | gaagtgggtg | 1680 |
| 55 | aagcgctggc  | gcagggcgga  | ttcacgcagc | tggcccagga | catgctcaac  | atccagaaag | 1740 |
| 56 | ctaagctgac  | cggggactac  | ctgcatacct | ccgcgattat | cgtcggcgac  | gggcaggtgc | 1800 |
| 57 | tgtcagccgt  | caacgacgtc  | aacgactatg | ccggtccggc | aacgggctat  | cgcctgcagg | 1860 |
| 58 | gcgaacgctg  | ggaagagatt  | aaaaacatcc | ctggcgctct | tgatcccaac  | gagattgatt | 1920 |
| 59 | aaggggtgag  | aaatggaaat  | taatgaaaaa | ttgctgcgcc | agataattga  | agacgtgctc | 1980 |
| 60 | agcgagatga  | agggcagcga  | taaaccggtc | tcgtttaatg | cgccggcgcc  | ctccgcggcg | 2040 |
| 61 | ccccaggcca  | cgcgcgccgc  | cggcgacggc | ttcctgacgg | aagtgggcga  | agcgcgtcag | 2100 |
| 62 | ggaaccacgc  | aggacgaagt  | gattatcgcc | gtcggcccgc | ctttcggcct  | ggcgagacc  | 2160 |
| 63 | gtcaatatcg  | tccgcatccc  | gcataagagc | attttgcgcg | aagtcattgc  | cggatttgaa | 2220 |
| 64 | gaagaaggca  | ttaaggcgcg  | cgtgattcgc | tgctttaaat | cctccgacgt  | ggccttcgtc | 2280 |
| 65 | gccgttgaag  | gtaatcgctc  | gagcggctcc | ggcatctcta | tcggcatcca  | gtcgaaaggc | 2340 |
| 66 | accacgggtg  | tccaccagca  | ggggctgcgc | ccgctctcta | acctggagct  | gttcccgcag | 2400 |
| 67 | gcgccgctgc  | tgaccttgga  | aacctatcgc | cagatcggca | aaaacgcgcg  | ccgctatgcg | 2460 |
| 68 | aaacgcgaat  | cgcgcagccc  | ggtcccgcgc | ctgaatgacc | agatggcgcg  | gccgaagtac | 2520 |
| 69 | caggcgaaat  | cggccatttt  | gcacattaaa | gagaccaagt | acgtggtgac  | gggcaaaaac | 2580 |
| 70 | ccgcaggaac  | tgcgctggc   | gctttgataa | aggataactc | catgaatacc  | gacgcaattg | 2640 |
| 71 | aatcgatggt  | acgcgacgta  | ttgagccgca | tgaacagcct | gcagggcgag  | gcgcctgcgg | 2700 |
| 72 | cggctccggc  | ggctggcgcc  | gcgtcccgtg | gcgccagggt | cagcgactac  | ccgctggcga | 2760 |
| 73 | acaagcacc   | ggaatgggtg  | aaaaccgcc  | ccaataaaa  | gctggacgac  | tttacgctgg | 2820 |
| 74 | aaaacgtgct  | gagcaataaa  | gtcacgcgcc | aggatatgcg | tattaccccg  | gaaaccctgc | 2880 |
| 75 | gcttacaggc  | ttctattgcc  | aaagacgcgg | gccgcgaccg | gctggcgatg  | aacttcgagc | 2940 |
| 76 | gcgccgccga  | gctgaccgcg  | gtaccggacg | atcgcttctc | tgaaatctac  | aacgccttcc | 3000 |
| 77 | gcccctatcg  | ctcgacgaaa  | gaggagctgc | tggcgatcgc | cgacgatctc  | gaaagccgct | 3060 |
| 78 | atcaggcgaa  | gatttgcgcc  | gctttcgctc | gcgaagcggc | cacgctgtac  | gtcgagcgta | 3120 |
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| 82 | cccgctcagg  | cgcgtcagcg  | ggtgttggcg | ggtgtcgggg | cgcagccatg  | acccagtcac | 3360 |
| 83 | gtagcgatag  | cggagtgtat  | aattcttgaa | gacgaaagg  | cctcgtgata  | cgcctathtt | 3420 |
| 84 | tataggttaa  | tgtcatgata  | ataatggttt | cttagacgtc | aggtggcact  | tttcggggaa | 3480 |
| 85 | atgtgcgcgg  | aacccctatt  | tgtttathtt | tctaaataca | ttcaaataatg | tatccgctca | 3540 |
| 86 | tgagacaata  | accctgataa  | atgcttcaat | aatattgaaa | aaggaagagt  | atgagtattc | 3600 |
| 87 | aacatttccg  | tgctgccttc  | attccctttt | ttgcggcatt | ttgccttctc  | gtttttgctc | 3660 |
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| 89 | acatcgaact  | ggatctcaac  | agcggtaaga | tccttgagag | ttttcgcccc  | gaagaacgtt | 3780 |
| 90 | ttccaatgat  | gagacttttt  | aaagtctctg | tatgtggcgc | ggtattatcc  | cgtgttgacg | 3840 |
| 91 | ccgggcaaga  | gcaactcggg  | cgcgcataac | actattctca | gaatgacttg  | gttgagtact | 3900 |
| 92 | caccagtcac  | agaaaagcat  | cttacggatg | gcatgacagt | aagagaatta  | tgcatgtctg | 3960 |
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TIME: 17:05:19

Input Set : N:\Cr4\01162007\J573728A.raw

Output Set: N:\CRF4\01182007\J573718A.raw

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| 95  | aaccggagct  | gaatgaagcc | ataccaaacg  | acgagcgtga  | caccacgatg  | cctgcagcaa | 4140 |
| 96  | tggcaacaac  | gttgcgcaaa | ctattaactg  | gcgaactact  | tactctagct  | tcccggcaac | 4200 |
| 97  | aattaataga  | ctggatggag | gcggataaag  | ttgcaggacc  | acttctgcgc  | tgggcccttc | 4260 |
| 98  | cggctggctg  | gtttattgct | gataaatctg  | gagccgggtga | gcgtgggtct  | cgcggtatca | 4320 |
| 99  | ttgcagcact  | ggggccagat | ggtaagccct  | cccgtatcgt  | agttatctac  | acgacgggga | 4380 |
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| 103 | cttaacgtga  | gttttcgttc | cactgagcgt  | cagaccccg   | agaaaagatc  | aaaggatctt | 4620 |
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| 105 | cagcggtggt  | ttgtttgcgc | gatcaagagc  | taccaactct  | ttttccgaag  | gtaactggct | 4740 |
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| 107 | tcaagaactc  | tgtagcaccg | cctacatacc  | tcgctctgct  | aatcctgtta  | ccagtggctg | 4860 |
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| 123 | cgcaaattgt  | cgcggcgatt | aaatctcgcg  | ccgatcaact  | gggtgccagc  | gtgggtggtg | 5820 |
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| 126 | aagctgcttg  | cactaatgtt | ccggcggtat  | ttcttgatgt  | ctctgaccag  | acacccatca | 6000 |
| 127 | acagtattat  | tttctcccat | gaagacggta  | cgcgactggg  | cgtggagcat  | ctggtcgcat | 6060 |
| 128 | tgggtcacca  | gcaaatcgcg | ctgttagcgg  | gcccatgaag  | ttctgtctcg  | gcgcgtctgc | 6120 |
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| 136 | cctctccccg  | cgcgttggcc | gattcattaa  | tgcagctggc  | acgacaggtt  | tcccagctgg | 6600 |
| 137 | aaagcgggca  | gtgagcgcaa | cgcaattaat  | gtgagttagc  | tactcatta   | ggcaccaccc | 6660 |
| 138 | gctttacact  | ttatgcttcc | ggctcgtatg  | ttgtgtggaa  | ttgtgagcgg  | ataacaattt | 6720 |
| 139 | cacacaggaa  | acagctatga | ccatgattac  | ggattcactg  | gccgtcgttt  | tacaacgtcg | 6780 |
| 140 | tgactgggaa  | aaccctggcg | ttacccaact  | taatcgctt   | gcagcacatc  | cccctttcgc | 6840 |
| 141 | cagctggcgt  | aatagcgaag | aggcccgcac  | cgatcgccct  | tcccaacagt  | tgcgcagcct | 6900 |
| 142 | gaatggcgaa  | tggcgctttg | cctgggtttcc | ggcaccagaa  | gcggtgccgg  | aaagctggct | 6960 |

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/573,718A

DATE: 01/18/2007

TIME: 17:05:19

Input Set : N:\Crf4\01162007\J573728A.raw

Output Set: N:\CRF4\01182007\J573718A.raw

|     |            |                               |  |             |             |            |      |
|-----|------------|-------------------------------|--|-------------|-------------|------------|------|
| 143 | ggagtgcgat | cttcctgagg                    | ccgatactgt   | cgctcgcccc  | tcaaactggc  | agatgcacgg | 7020 |
| 144 | ttacgatgcg | cccatctaca                    | ccaacgtaac   | ctatcccatt  | acgggtcaatc | cgccgtttgt | 7080 |
| 145 | tcccacggag | aatccgacgg                    | gttggttactc  | gctcacattt  | aatgttgatg  | aaagctggct | 7140 |
| 146 | acaggaaggc | cagacgcgaa                    | ttatTTTTga   | tggcggttga  | att         |            | 7183 |
| 148 | <210>      | SEQ ID NO: 2                  |  |             |             |            |      |
| 149 | <211>      | LENGTH: 6607                  |  |             |             |            |      |
| 150 | <212>      | TYPE: DNA                     |  |             |             |            |      |
| 151 | <213>      | ORGANISM: <u>plasmid p15A</u> | <i>same error - sequence 3 and 4 have same error</i> |             |             |            |      |
| 152 | <400>      | SEQUENCE: 2                   |  |             |             |            |      |
| 153 | gaattaattc | tggcgaatcc                    | tctgaccagc   | cagaaaacga  | cctttctgtg  | gtgaaaccgg | 60   |
| 154 | atgctgcaat | tcagagcgcc                    | agcaagtggg   | ggacagcaga  | agacctgacc  | gccgcagagt | 120  |
| 155 | ggatgtttga | catggtgaag                    | actatcgcac   | catcagccag  | aaaaccgaat  | tttgctgggt | 180  |
| 156 | gggctaacga | tatccgcctg                    | atgctggaac   | gtgacggacg  | taaccaccgc  | gacatgtgtg | 240  |
| 157 | tgctgttccg | ctgggcatgc                    | caggacaact   | tctggtccgg  | taacgtgctg  | agcccgccca | 300  |
| 158 | agcttactcc | ccatccccct                    | gttgacaatt   | aatcatcggc  | tcgtataatg  | tgtggaattg | 360  |
| 159 | tgagcggata | acaatttcac                    | acaggaaaca   | ggatcctagg  | aggtttaaac  | atatgcgata | 420  |
| 160 | tatagctggc | attgatatcg                    | gcaactcatc   | gacggaagtc  | gccctggcga  | ccctggatga | 480  |
| 161 | ggctggcgcg | ctgacgatca                    | cccacagcgc   | gctggcggaa  | accaccggaa  | tcaaaggcac | 540  |
| 162 | gttgcgtaac | gtgttcggga                    | ttcaggaggc   | gctcgccctc  | gtcgccagag  | gcgccgggat | 600  |
| 163 | cgccgtcagc | gatatttcgc                    | tcatccgcac   | caacgaagcg  | acgccggtga  | ttggcgatgt | 660  |
| 164 | ggcgatggaa | accattaccg                    | aaaccatcat   | caccgaatcg  | accatgatcg  | gccataaccc | 720  |
| 165 | gaaaacgccc | ggcggcgcgg                    | ggcttggcac   | aggcatcacc  | attacgccgc  | aggagctgct | 780  |
| 166 | aaccgcgccg | gcggacgcgc                    | cctatatacct  | ggtggtgtcg  | tcggcggttcg | atTTTgcgga | 840  |
| 167 | tatcgccagc | gtgattaacg                    | cttccctgcg   | cgccgggtat  | cagattaccg  | gcgtcatttt | 900  |
| 168 | acagcgcgac | gatggcgtgc                    | tggtcagcaa   | ccggctggaa  | aaaccgctgc  | cgatcgttga | 960  |
| 169 | cgaagtgcgt | tacatcgacc                    | gcattccgct   | ggggatgctg  | gcggcgattg  | aggtcgccgt | 1020 |
| 170 | tccggggaa  | gtcatcgaaa                    | ccctctctaa   | cccttacggc  | atcgccaccg  | tctttaacct | 1080 |
| 171 | cagccccgag | gagacgaaga                    | acatcgctcc   | gatggcccg   | gcgctgattg  | gcaaccgttc | 1140 |
| 172 | cgccgtgtgt | gtcaaaacgc                    | catccggcga   | cgTcaaaagcg | cgcgcgatac  | ccgccggtaa | 1200 |
| 173 | tcttgagctg | ctggcccagg                    | gccgtagcgt   | gcgcgtggat  | gtggccgcgc  | gcgccgaagc | 1260 |
| 174 | catcatgaaa | gcggtcgacg                    | gctgcggcag   | gctcgataac  | gtcacccggc  | aatccggcac | 1320 |
| 175 | caatatcggc | ggcatgctgg                    | aacacgtgcg   | ccagaccatg  | gccgagctga  | ccaacaagcc | 1380 |
| 176 | gagcagcgaa | atattttattc                   | aggacctgct   | ggccgttgat  | acctcggtac  | cggtgagcgt | 1440 |
| 177 | taccggcggt | ctggccgggg                    | agttctcgct   | ggagcaggcc  | gtgggcatcg  | cctcgatggt | 1500 |
| 178 | gaaatcggat | cgcttcgaga                    | tggcaatgat   | cgcccgcgaa  | atcgagcaga  | agctcaatat | 1560 |
| 179 | cgacgtgcag | atcggcggcg                    | cagaggccga   | agccgccatc  | ctggggggcg  | tgaccacgcc | 1620 |
| 180 | gggcaccacc | cgaccgctgg                    | cgatcctcga   | cctcggcgcg  | ggctccaccg  | atgcctccat | 1680 |
| 181 | catcaacccc | aaaggcgaca                    | tcatcgccac   | ccatctcgcc  | ggcgcaggcg  | acatggtgac | 1740 |
| 182 | gatgattatt | gcccgcgagc                    | tggggctgga   | agaccgctat  | ctggcggaag  | agatcaagaa | 1800 |
| 183 | gtaccgcgtg | gctaagggtg                    | aaagcctgtt   | ccatttacgc  | cacgaggacg  | gcagcgtgca | 1860 |
| 184 | gttctttctc | acgccgctgc                    | cgcccgcctg   | gttcgcccgc  | gtctgcgtgg  | tgaaagcgga | 1920 |
| 185 | cgaactgggt | cgctgccccg                    | gcgatttagc   | gctggaaaaa  | gtgcgcgcca  | ttcgccgcag | 1980 |
| 186 | cgccaaagag | cggttctttg                    | tcaccaacgc   | cctgcgcgcg  | ctgcgtcagg  | tcagccccac | 2040 |
| 187 | cggcaacatt | cgcgatattc                    | cgttcgtggt   | gctggtcggc  | ggttcgtcgc  | tggatttcga | 2100 |
| 188 | agtcccgag  | ctggtcaccg                    | atgcgctggc   | gcactaccgc  | ctggttgccg  | gacggggaaa | 2160 |
| 189 | tattcgcggc | agcgagggcc                    | cccgaacgc  | ggTggccacc  | ggcctgattc  | tctcctggca | 2220 |
| 190 | taaggagttt | gcgcatgaac                    | ggtaatcaca   | gcgccccggc  | catcgcgatc  | gccgtcatcg | 2280 |
| 191 | acggctgcga | cggcctgtgg                    | cgcgaaagtgc  | tgctgggtat  | cgaagaggaa  | ggtatccctt | 2340 |
| 192 | tccggctcca | gcataccccg                    | gccggagagg   | tcgtggacag  | cgccctggcag | gcggcgcgca | 2400 |

## RAW SEQUENCE LISTING

DATE: 01/18/2007

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Input Set : N:\Cr4\01162007\J573728A.raw

Output Set: N:\CRF4\01182007\J573718A.raw

|     |            |             |             |             |             |             |      |
|-----|------------|-------------|-------------|-------------|-------------|-------------|------|
| 193 | gctcgccgct | gctggtgggc  | atcgccctgcg | accgccatat  | gctgggtcgtg | cactacaaga  | 2460 |
| 194 | atttaccgcg | atcgggcgccg | cttttttacgc | tgatgcatca  | tcaggacagt  | caggcccatc  | 2520 |
| 195 | gcaacaccgg | taataacgcg  | gcacggctgg  | tcaaggggat  | ccctttccgg  | gatctgaata  | 2580 |
| 196 | gcgaagcaac | aggagaacag  | caggatgaat  | aagatctcgg  | gtagcccggc  | taatgagcgg  | 2640 |
| 197 | gctttttttt | atgagaatta  | caacttatat  | cgtatggggc  | tgacttcagg  | tgctacattt  | 2700 |
| 198 | gaagagataa | attgactga   | aatctagaaa  | tattttatct  | gattaataag  | atgatcttct  | 2760 |
| 199 | tgagatcggt | ttggtctgcg  | cgtaatctct  | tgctctgaaa  | acgaaaaaac  | cgcttgcag   | 2820 |
| 200 | ggcggttttt | cgaaggttct  | ctgagctacc  | aactctttga  | accgaggtaa  | ctggcttgga  | 2880 |
| 201 | ggagcgcagt | cacaaaaact  | tgctctttca  | gtttagcctt  | aaccggcgca  | tgacttcaag  | 2940 |
| 202 | actaactcct | ctaaatcaat  | taccagtggc  | tgctgccagt  | ggtgcttttg  | catgtctttc  | 3000 |
| 203 | cgggttggac | tcaagacgat  | agttaccgga  | taaggcgagc  | cggtcggact  | gaacgggggg  | 3060 |
| 204 | ttcgtgcata | cagtcagct   | tggagcgaac  | tgcttaccgc  | gaactgagtg  | tcaggcgtgg  | 3120 |
| 205 | aatgagacaa | acgcggccat  | aacagcggaa  | tgacaccggt  | aaaccgaaag  | gcaggaacag  | 3180 |
| 206 | gagagcgcac | gagggagccg  | ccagggggaa  | acgcctggta  | tctttatagt  | cctgtcgggt  | 3240 |
| 207 | ttcgccacca | ctgatttgag  | cgtcagattt  | cgtgatgctt  | gtcagggggg  | cggagcctat  | 3300 |
| 208 | ggaaaaacgg | ctttgccgcg  | gccctctcac  | ttccctgtta  | agtatcttcc  | tggtatcttc  | 3360 |
| 209 | caggaaatct | ccgccccgtt  | cgtaagccat  | ttccgctcgc  | cgcagtcgaa  | cgaccgagcg  | 3420 |
| 210 | tagcgagtca | gtgagcgagg  | aagcgggaata | tatcctgtat  | cacatattct  | gctgacgcac  | 3480 |
| 211 | cgggtgcagc | ttttttctcc  | tgccacatga  | agcacttcac  | tgacaccctc  | atcagtgcc   | 3540 |
| 212 | acatagtaag | ccagtataca  | ctccgctagc  | gctgatgtcc  | ggcgggtgctt | ttgccgttac  | 3600 |
| 213 | gcaccacccc | gtcagtagct  | gaacaggagg  | gacagctgat  | agaaacagaa  | gccactggag  | 3660 |
| 214 | cacctcaaaa | acaccatcat  | acactaaatc  | agtaagttgg  | cagcatcacc  | cgacgcactt  | 3720 |
| 215 | tgcgccgaat | aaatacctgt  | gacggaagat  | cacttcgcag  | aataaataaa  | tcttgggtgtc | 3780 |
| 216 | cctgttgata | ccgggaagcc  | ctggggccaac | ttttggcgaa  | aatgagacgt  | tgatcggcac  | 3840 |
| 217 | gtaagagggt | ccaactttca  | ccataatgaa  | ataagatcac  | taccgggctg  | attttttgag  | 3900 |
| 218 | ttatcgagat | tttcaggagc  | taaggaagct  | aaaatggaga  | aaaaaatcac  | tggtatatacc | 3960 |
| 219 | accgttgata | tatcccaatg  | gcacgtgtaa  | gaacattttg  | aggcatttca  | gtcagttgct  | 4020 |
| 220 | caagtacact | ataaccagac  | cgttcagctg  | gatattacgg  | cctttttaaa  | gaccgtaaag  | 4080 |
| 221 | aaaaataagc | acaagtttta  | tccggccttt  | attcacattc  | ttgcccgcct  | gatgaatgct  | 4140 |
| 222 | catccggaat | ttcgtatggc  | aatgaaagac  | ggtgagctgg  | tgatatggga  | tagtggtcac  | 4200 |
| 223 | ccttgttaca | ccgtttttcca | tgagcaaaact | gaaacgtttt  | catcgctctg  | gagtgaatac  | 4260 |
| 224 | cacgacgatt | tccggcagtt  | tctacacata  | tattcgcaag  | atgtggcggtg | ttacggtgaa  | 4320 |
| 225 | aacctggcct | atttccctaa  | aggggtttatt | gagaatatgt  | ttttcgtctc  | agccaatccc  | 4380 |
| 226 | tggttgagtt | tcaccagttt  | tgatttaaac  | gtggccaata  | tggaacaactt | cttcgcccc   | 4440 |
| 227 | gttttcacca | tgggcaaata  | ttatacgcaa  | ggcgacaagg  | tgctgatgcc  | gctggcgatt  | 4500 |
| 228 | caggttcac  | atgccgtctg  | tgatggcttc  | catgtcggca  | gaatgcttaa  | tgaattacaa  | 4560 |
| 229 | cagtactgcg | atgagtggca  | gggcggggcg  | taattttttt  | aaggcagtta  | ttggtgccct  | 4620 |
| 230 | taaacgcctg | gtgctacgcc  | tgaataagtg  | ataataagcg  | gatgaatggc  | agaaattcga  | 4680 |
| 231 | aagcaaattc | gacccggctg  | tccgttcagg  | gcagggtcgt  | taaatagccg  | cttatgtcta  | 4740 |
| 232 | ttgctggttt | accggtttat  | tgactaccgg  | aagcagtggtg | accgtgtgct  | tctcaaatgc  | 4800 |
| 233 | ctgaggccag | tttgctcagg  | ctctccccgt  | ggaggttaata | attgacgata  | tgatcattta  | 4860 |
| 234 | ttctgcctcc | caaagcaatt  | ccgacaccat  | cgaatggtgc  | aaaacctttc  | gcggtatggc  | 4920 |
| 235 | atgatagcgc | ccggaagaga  | gtcaattcag  | ggtggtgaat  | gtgaaaccag  | taacgttata  | 4980 |
| 236 | cgatgtcgca | gagtatgccg  | gtgtctctta  | tcagaccggt  | tcccgcgtgg  | tgaaccaggc  | 5040 |
| 237 | cagccacggt | tctgcgaaaa  | cgcgggaaaa  | agtggaagcg  | gcgatggcgg  | agctgaatta  | 5100 |
| 238 | cattcccaac | cgcgtggcac  | aacaactggc  | gggcaaacag  | tcggtgtgta  | ttggcggtgc  | 5160 |
| 239 | cacctccagt | ctggccctgc  | acgcgcctgc  | gcgaattgtc  | gcggcgatta  | aatctcgcgc  | 5220 |
| 240 | cgatcaactg | ggtgccagcg  | tggtggtgtc  | gatggtagaa  | cgaagcggcg  | tcgaagcctg  | 5280 |
| 241 | taaagcggcg | gtgcacaatc  | ttctcgcgca  | acgcgtcagt  | gggctgatca  | ttactatccc  | 5340 |

**VERIFICATION SUMMARY**

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L:13 M:270 C: Current Application Number differs, Replaced Current Application Number